Kelly, Virginia

From: Navratil, Russ [nav@co.henrico.va.us]

Sent: Friday, April 11, 2008 9:09 AM

To: Kelly, Virginia

Subject: RE: revision to VPDES permit, Part I.B.1.a

Gina,

I do not see any issue with the proposed revision to the permit that you show below.

Russell Navratil County of Henrico Department of Public Utilities Water Treatment Facility 10111 Three Chopt Road Richmond, Virginia 23233

804-935-0367 EXT. 222 804-527-0271 FAX

From: Kelly, Virginia [mailto:vekelly@deq.virginia.gov]

Sent: Fri 4/11/2008 9:07 AM

To: Navratil, Russ

Subject: revision to VPDES permit, Part I.B.1.a

Hi Russ,

It is my understanding that while the WTP doesn't currently feed and hasn't historically feed any chemicals other than KMNO4 at the intake structure, the ability to feed other chemicals (like sodium hypochlorite) is there. Accordingly DEQ proposes to revise the Part I.B.l.a special condition to read:

Following each and every release of process water (i.e., any emergency overflow from the Clear Well Overflow (CWO), Raw Water Inlet if Potassium Permanganate has any chemicals have been added (RWI), Filter Inlet Channel (FIC) and Washwater Reclamation Tanks (WRT) or from the Clear Well Drain (CWD)) to the detention basin, all subsequent discharges from the detention basin ("discharge(s)") shall be monitored in accordance with the requirements of Part I.A. of this permit until either a volume of water greater than ten times the volume of process water released into the basin or 770,000 gallons, whichever is greater, has been discharged.

As this revision creates a more stringent permit, no re-public notice is necessary. Please let me know if the county has any comments on and is willing to accept these changes. A response to this email is sufficient.

Thanks for your help,

Gina Kelly

Water Permitting



MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY Piedmont Regional Office

4949-A Cox Road, Glen Allen, Virginia 23060-6295

804/527-5020

TO: Curt Linderman FROM: Gina Kelly DATE: January 4, 2008

SUBJECT: Waiver Request for VA0091197 - Henrico County WTP

COPIES: File (R/W, right)

Please note the following:

- The facility discharges to a public water supply and has a flow rate of 0.70 MGD (based on basin capacity).
- A waiver is requested for BOD, TSS, COD, TOC, and iron.

When this permit was initially issued, an EPA Form 2D was completed. As this facility is **not** a new discharger and this permit action is a reissuance, the permittee completed the EPA Form 2C as part of the application package. Parts V.A and B of this form require monitoring of various pollutants, including those parameters listed above. As the facility has not had a discharge of process wastewater which required sampling and monitoring, no effluent data is available. Concentrations of these parameters in the intake water were provided.

I recommend approving this waiver. The parameters above are conventional pollutants (not toxics), and the permit currently limits TSS and requires monitoring for dissolved iron (a PWS concern). Having analytical results for these parameters would not affect the draft permit.

Approve	ed Denied	
Comments:	As recommended, for This permit cycle only.	
Signa	1/7/08 Date	

Kelly, Virginia

From: Ridenoure, Jennifer [JRidenoure@PIRNIE.COM]

Sent: Tuesday, December 04, 2007 8:24 AM

To: Kelly, Virginia

Subject: RE: Henrico County WTP VPDES Permit application

Kelly, Yes they are in mg/L. Thanks, Jennifer

From: Kelly, Virginia [mailto:vekelly@deq.virginia.gov]

Sent: Monday, December 03, 2007 5:11 PM

To: Ridenoure, Jennifer

Subject: Henrico County WTP VPDES Permit application

Hi Jennifer,

I received the revised permit application today and came upon one quick question during my review. Form 2C, Part V.A and B have several estimated values for various parameters; however, some estimates are missing units. I assume the units for are ammonia, TRC, iron, and manganese all in mg/L? Please confirm that this assumption is correct.

Thanks,

Gina Kelly

Department of Environmental Quality Piedmont Regional Office Water Permits 804/527-5048 804/527 5106 (fax)



please consider the environment - do you really need to print this email?





DEPARTMENT OF PUBLIC UTILITIES

ARTHUR D. PETRINI, P.E. DIRECTOR (804) 501-4517

COUNTY OF HENRICO

November 29, 2007



Virginia R. E. Kelly, EIT Department of Environmental Quality Piedmont Regional Office 4949-A Cox Road Glen Allen, Virginia 23060

RE: Reissuance of VPDES Permit No. VA0091197

Dear Ms. Kelly:

The Henrico County Department of Utilities has addressed the issues in the Department of Environmental Quality (DEQ) reissuance letter dated October 23, 2007. Actions taken in response to each DEQ comment are listed below in *italics*:

On EPA Form 1, please clarify the following:

• DEQ Comment:

Item III.C – Please specify the type of public entity.

Response:

The type of public entity is now specified as "Municipal" for Item III.C.

DEQ Comment:

Item VII - The SIC code indicated (8999 - service not elsewhere classified) does not coincide with the SIC Code selected previously (4941 - Water Supply). SIC code 4941 is the code typically selected by most Water Treatment Plants. Please review the SIC Code 4941 to determine if this code more appropriately describes the operation.

Response:

SIC code 4941 – Water Supply was reviewed. This code more appropriately indicates the operation of the Water Treatment Plant and is now noted in Item VII.

• DEQ Comment:

Item X.A – Please note that this permit (VA0091197) is an NPDES permit issued by the Commonwealth of Virginia to whom EPA has delegated this authority.

Response:

It is noted in X.A that the NPDES permit is issued by the Commonwealth of Virginia which has primacy as delegated by the EPA.

With regards to the EPA Form 2C

• DEQ Comment:

Item I.A – The latitude and longitude coordinates for the outfall vary from those coordinates previously submitted. Please confirm that these most recent values are correct and also verify how these coordinates were obtained (GPS, topozone.com, estimates, etc).

Response:

The coordinates have been modified to those submitted in the original permit application.

• DEQ Comment:

Item II.B.2.b – No flows were provided as the facility has not actually discharged process wastewater. Please provide estimates of flow contributions from each source. The current permit fact sheet may be a useful reference as it contains the previously estimated flows from each source; please be sure to review the old flows and associated sources to ensure that these estimates are still accurate.

Response:

The current permit fact sheet and application were reviewed and do provide an accurate estimation of the potential flows at the facility. These flows have been inserted into Item II.B.2.b.

• DEQ Comment:

Items III.A, B, and C – No federal effluent guidelines are applicable to this facility. Please revise these sections.

Response:

The sections are revised as per DEQ comment.

• DEO Comment:

Item V.A – Please provide estimated data for these parameters and add a note indicating that the values were estimated and how the estimates were made (references, etc.). The previously submitted application may be a useful reference as it contains the previously estimated data for each parameter; please be sure to review the means of estimation to ensure that these values are still accurate.

Response:

The previously submitted application was referenced to provide estimated data for parameters in the section.

• DEQ Comment:

Item V.B.2 – Please mark each parameter as "believed present" or "believed absent." For any parameters marked "believed present," please provide estimated data values and the source of the estimate.

Response:

The previously submitted application was referenced to provide data for parameters in the section.

DEQ Comment:

Item V.C.2 – Please mark each parameter as "testing required," "believe present", or "believed absent." For any parameters marked "testing required" or "believed present," please provide estimated data values and the source of the estimate.

Response:

The previous application was used as a reference to provide data for each parameter. The parameters are included in Item V.C.2.

• DEQ Comment:

IX.C - Russell Navratil needs to sign and date this form.

Response:

The name has been changed to Arthur Petrini. Arthur Petrini has signed and dated the form.

VPDES Permit Application Addendum

• DEQ Comment:

Item 6 – The percent wastewater from non-domestic sources is 100%. Please revise accordingly.

Response:

This has been revised per the DEQ Comment.

• DEQ Comment:

Item 8 – This permit authorizes discharge from the stormwater basin. This question refers to characteristics of the stream receiving discharge fro the basin (e.g. the unnamed tributary to Deep Run Creek). Please revise the response.

Response:

The characteristics of the Unnamed Tributary are revised.

Virginia R. E. Kelly, EIT November 29, 2007 Page 4

Public Notice Authorization

• DEQ Comment:

This form must be signed by Arthur Petrini.

Response:

Arthur Petrini has signed the form.

The revisions noted above have been made to the reissuance permit application. Three revised copies are attached to this letter.

Sincerely,

Arthur Petrini, P.E.

Director of Public Utilities

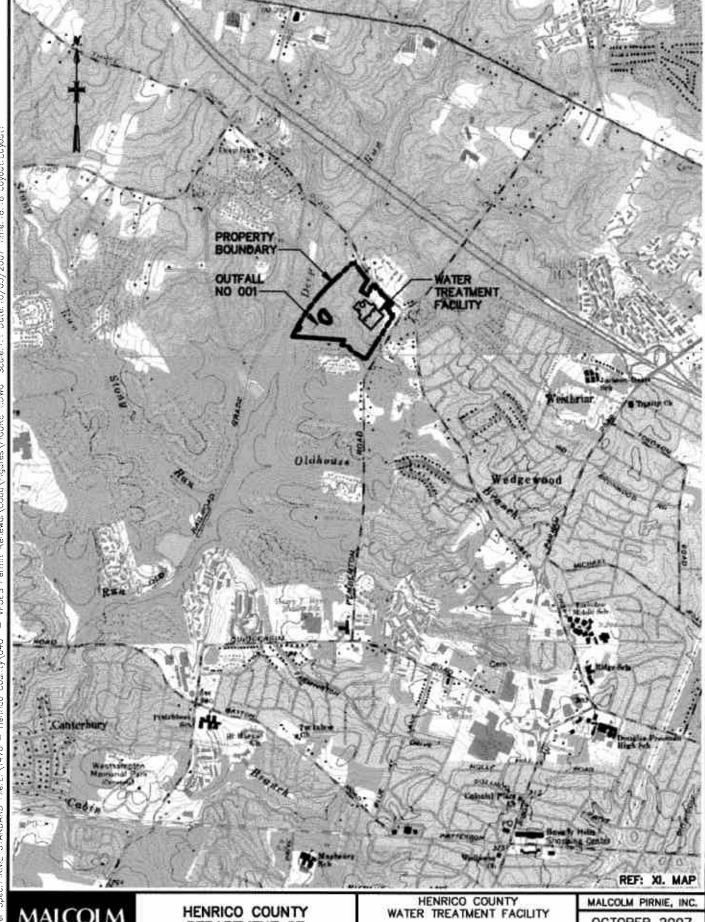
Enclosures

cc: Russell Navratil, Division Director, Water Reclamation Facility Marchelle Sossong, Senior Engineer, CIP

Form	Annroyed	OMB No.	2040-0086
rom	Approved.	UNB NO.	2040-0086.

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or other flu connection v inject fluids	uids which are with conventional of used for enhance	brought to the surface in oil or natural gas production, ed recovery of oil or natural ige of liquid hydrocarbons?		×		F	processes such as mining	of sulfur by the Frasch process, als, in situ combustion of fossil		×	
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ler r	C. THIRD	***************************************	CT T T T 170m2	······	D. FOURTH	
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15 15 - 19			15 18 - 19			
VIII. OPERATO	OR INFORMATION					
		A. NAME	·			B. Is the name listed in Item
8 Henric	o County Department of Publ	ic Utlitie	 *S	1 1 1 1 1	1	VIII-A also the owner?
15 16	X - E					ØYES□NO
	C. STATUS OF OPERATOR (Enter the appr	prints later into the	more have if "Diha	z " spanifu l	In	. PHONE (area code & no.)
r repend		·	ecify)	r. specify.)	0.	THORE (area code & m.)
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XI. MAP						
Attach to this	application a topographic map of the area extending the children of its existing and proposed intake and discharg	ng to at least one	mile beyond prope	rty boundaries. Th	e map must sho	w the outline of the facility, the
	inderground, Include all springs, rivers, and other su					
	······································					
	OF BUSINESS (provide a brief description)					
County.	o County Water Treatment Facility	provides dri	nking water	to the reside	ents and bus	sinesses of Henrico
Country.						
ļ						
XIII. CERTIFIC	CATION (see instructions)					
inquiry of thos	penalty of law that I have personally examined and se persons immediately responsible for oblaining th tithere are significant penalties for submitting false in	e information contai	ined in the applicat	llon, I believe that I	lhe information is	
			h m		***************************************	C DATE CICHEO
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MALCOLM PIRNIE HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES WATER TREATMENT FACILITY
FACILITY MAP

SCALE: 1" = 2000"

MALCOLM PIRNIE, INC. OCTOBER 2007 FIGURE 1

Form Approved. OMB No. 2040-0086. Approval expires 3-31-98.

Please print or type in the unshaded areas only.

FORM 2C



U.S. ENVIRONMENTAL PROTECTION AGENCY APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER

EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS

NPDES Consolidated Permits Program
OUTFALL LOCATION

E	3. LATITUDE		C.	LONGITUDE		
1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	D. RECEIVING WATER (stame)
37N	37	34	77W	34	54	Unnamed Tributary to Deep Run
	1. DEG.	1. DEG. 2. MIN.	1. DEG. 2. MIN. 3. SEC.	1. DEG. 2. MIN. 3. SEC. 1. DEG.	1. DEG. 2. MIN. 3. SEC. 1. DEG. 2. MIN.	1. DEG. 2. MIN. 3. SEC. 1. DEG. 2. MIN. 3. SEC.

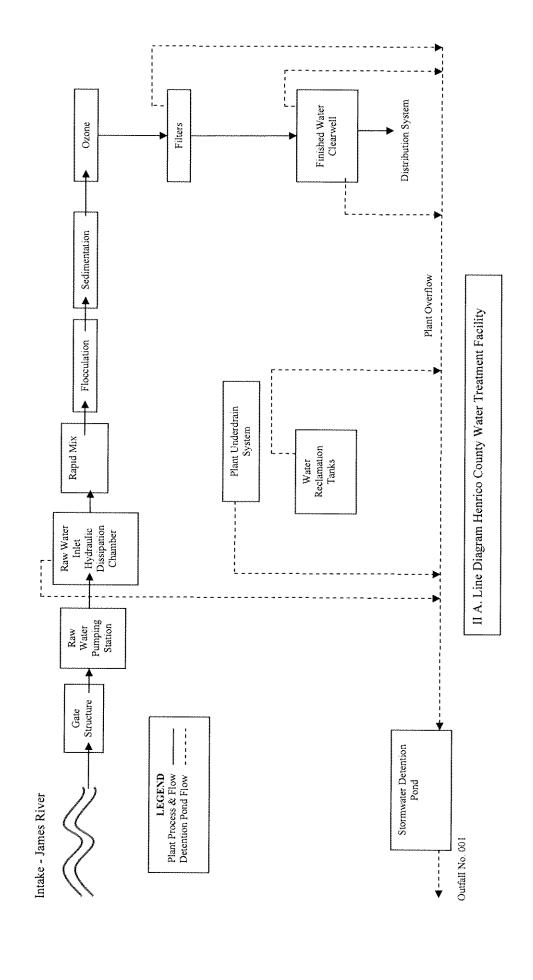
II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.
- B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-	2. OPERATION(S) CON	TRIBUTING FLOW	3. TREATMENT	***************************************	
FALL NO. (list)	a. OF ENATION (#31)	b. AVERAGE FLOW (include units)	a. DESCRIPTION		DES FROM E 2C-t
001	Emergency Overflows:				T
	(a) Finished water Clearwell	700,000 gpy*	Reaeration/volatilization in conveyance system and detention basin prior to discharge	XX	XX
	(b) Raw water inlet	700,000 goy	Sedimentation in detention basin	i U	хх
	(c) Pilter inlet channel	760,000 gpy	Sedimentation in detention basin	1 - U	хх
001	(d) Wash-water reclamation tanks	144,000 gpy	Sedimentation in detention basin	1.0	хх
	(e) Draining of clearwell cell	100,000 gpy**	Reaeration/volatilization in conveyance system and detention basin prior	ХX	xx
	(f) Underdrains from WTF	24,000 gpd***	Sedimentation in detention basin	1.U	ХX
		2			

- *The overflows (a) through (d) assume the occurrence of 1/year (gallons per year) and duration of 15 to 30 minutes. It should be noted that no overflows occurred during the last permitted period
- **The clearwell cell is drained for inspection/maintenance once every 5 to 10 years
- ***(f) underdrain drainage is not concerned with the detention basin water quality as it is the expected quality of the stormwater from the subject industrial activity.

OFFICIAL USE ONLY (effluent guidelines sub-categories)



CONTINUED FROM THE FRONT C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal? YES (cumulete the fullowing table) NO (ga ta Section III) 3. FREQUENCY 4. FLOW B. TOTAL VOLUME a DAYS PER WEEK 2. OPERATION(s) CONTRIBUTING FLOW a. FLOW RATE (in mgd) b. MONTHS (specify with units) 1. OUTFALL (specify PER YEAR C. DURATION 1. LONG TERM AVERAGE 2. MAXIMUM DAILY 1. LONG TERM 2. MAXIMUM NUMBER (fist) (fist) average) (specify average) (in days) **AVERAGE** DAILY Emergency overflows (a) finished water clearwell 001 0.083* 0 0 0 0.7 700,000 0.021 raw water inlet 0.083* 0.7 0 700,000 0.21 (c) filter inlet channel(d) wash-water reclamation tanks. 0.083* 0 700,000 0.21 0 0.083* 0 0.144 0 0.21 (e) Draining of clearwell cell. 0.083* 0.10 100,000 0.21 *Assumes one overflow every year III. PRODUCTION A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility? YES (complete Item III-B) NO (go ta Section IV) B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)? YES (complete Item III-(') NO (ga to Sectian IV) C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls. 1. AVERAGE DAILY PRODUCTION 2. AFFECTED OUTFALLS c. OPERATION, PRODUCT, MATERIAL, ETC. a. QUANTITY PER DAY b. UNITS OF MEASURE (list outfall numbers) (specify) IV. IMPROVEMENTS A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions. NO (go tu Item IV-B) YES (complete the fullowing table) 1. IDENTIFICATION OF CONDITION 2. AFFECTED OUTFALLS 4. FINAL COMPLIANCE DATE 3. BRIEF DESCRIPTION OF PROJECT AGREEMENT, ETC. b. SOURCE OF DISCHARGE a. REQUIRED b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (copy from Item 1 of Form 1)

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACT A, B, & C: See instructions before proc NOTE: Tables V-A, V-B, an	TERISTICS ceeding – Complete one set of tables for each id V-C are included on separate sheets numbe	outfall – Annotate the outfall number in the	e space provided.
D. Use the space below to list any of t	the pollutants listed in Table 2c-3 of the instruction	ctions, which you know or have reason to	believe is discharged or may be discharged
1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Ammonia Chlorine Total Suspended Solids	Potable water, Raw River water Potable water Raw River Water		
VI. POTENTIAL DISCHARGES NOT CO	OVERED BY ANALYSIS stance or a component of a substance which ye	ou currently use or manufacture as an inte	rmediate or final product or byproduct?
YES (list all such pollutar	nts below)	NO (go to Item VI-B)	The state of the product of the products

EPA Form 3510-2C (8-90) PAGE 3 of 4 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA			
Do you have any knowledge or reason to bel relation to your discharge within the last 3 ye.	ieve that any biological test for acute or chronic tox ars?	city has been made on any of your dis	scharges or on a receiving water in
YES (identify the test(s) and de		NO (go 10 Section VIII)	
VIII. CONTRACT ANALYSIS INFORMATION			
Were any of the analyses reported in Item \vee	performed by a contract laboratory or consulting firm	n?	
YES (list the name, address, and each such laboratary or fir	d telephone number af, and pollutants analyzed by, n below)	NO (go 10 Section 1X)	
A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
IX. CERTIFICATION	ant and all attachments		
qualified personnel properly gather and eva directly responsible for gathering the informa	ent and all attachments were prepared under my di luate the information submitted. Based on my inq tion, the information submitted is, to the best of my nformation, including the possibility of fine and impr	uiry of the person or persons who n knowledge and belief true, accurate	sanage the evetem or those persons
A. NAME & OFFICIAL TITLE (type or print)	g peasanty o, mo dra mpr	B. PHONE NO. (area code & na.)	
Arthur Petrini, Director Henri	.co County DPU	(804) 501-4280	
C. SIGNATURE OF REPORT OF	tuni	D. DATE SIGNED / 11/30/07	

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

b. NO. OF ANALYSES OUTFALL NO. (2) MASS 4, INTAKE a. LONG TERM AVERAGE VALUE CONCENTRATION mg/L mg/Lmg/L mg/L <10 <10 VALUE VALUE VALUE N 2 ເຄ b. MASS STANDARD UNITS × × × × × (specify if hlank) 3. UNITS a. CONCENTRATION ô ပ္ PART A -You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details × × × × × d. NO. OF ANALYSES × × × × \times (2) MASS c. LONG TERM AVRG, VALUE (if available) × × × × × MGD × (1) CONCENTRATION × 0 × × × × × VALUE VALUE VALUE EFFLUENT b. MAXIMUM 30 DAY VALUE MAXIMUM X (2) MASS V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C) × × × × × (if available) CONCENTRATION × × × MINIMOM × × × × × VALUE VALUE VALUE MAXIMUM 7.5 a. MAXIMUM DAILY VALUE (2) MASS × × × × × Celsius VALUE 7 Celsius 0.7 MGD (1) CONCENTRATION 0.005 VALUE 27 MINIMUM 7.0 × × × VALUE c. Total Organic Carbon a. Biochemical Oxygen b. Chemical Oxygen Demand (COL) 1. POLLUTANT d. Total Suspended Solids (TXX) e. Ammonia (as N) g. Temperature Temperature Oemand (BOD) summer) f, Flow (winter) (3OC) ā

Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2 you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements. PART8-

	2. MA	2. MARK "X"	2. MARK "X"			3, EFFLUENT	3. EFFLUENT 4. UNITS			4. UNITS	S	5. INT	5. INTAKE (optional)	
1. POLLUTANT AND	α	ſ	a. MAXIMUM DAILY VALUE	ULY VALUE	b. MAXIMUM 30 DAY VALUE	AY VALUE	c. LONG TERM AVRG. VALUE	VRG. VALUE				a. LONG TERM AVERAGE	VERAGE	
CAS NO. (if available)	BELIEVED	BELIEVED ABSENT	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION) MASS	(1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	b. MASS CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)		×						1						
b. Chloríne, Total Residual	×		0.015	×	×	×	×	×	1	×	×	×	×	×
c. Color		×												
d, Fecal Coliform		×												
e, Fluoride (16984-48-8)		X												
f. Nitrate-Nitrite (as M)		X												

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PAGE V-t

CONTINUE ON REVERSE

References for data in V.A, V.B, and V.C were provided from the previously submitted application.

ITEM V-B CONTINUED FROM FRONT

	2 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	.56										***************************************		
1. POLLUTANT	7. W.	< L			S A S A S I I I I I I I I I I I I I I I	S EFFLUEN		31 19/1 Od/1		4, UNII S	2	TENI 'S	S. IN ANE (optional)	
	roi (إذ		- 1	(if availa.	ble)	(if available)	•	(AVERAGE VALUE		(
	PRESENT	ABSENT	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION (2) MASS	(2) MASS	(1) CONCENTRATION	(2) MASS	ANALYSES	TRATION	b. MASS	(1) CONCENTRATION	ASS	B. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)		X												
h. Oil and Grease		X				***************************************			WWW.	***************************************				
i. Phosphorus (as P), Total (7723-14-0)	X	•••••••••••••••••••••••••••••••••••••••	0.2 mg/L	×	٥	×	0	×	, ~					
j. Radioactivity														
(1) Alpha, Total		×												
(2) Beta, Total		×												
(3) Radium, Total		X		***************************************										
(4) Radium 226, Total		X												
k, Sulfate (as SO ₂) (14808-79-8)		X												
i. Suifide (as S)		X												
m. Sulfite (as SO.) (14265-45-3)		X		A CALLES AND A CAL										
n, Surfactants		×												
o. Aluminum, Total (7429-90-5)		X												
p. Barium, Total (7440-39-3)		X												
q. Boron, Total (7440-42-8)		×												
r. Cobait, Total (7440-48-4)		X												
s, Iron, Total (7439-89-6)	×		×	×	x	×	х	×	X	X	X	o. o	×	×
t. Magnesium, Total (7439-95-4)		X												
u. Molybdenum, Total (7439-98-7)		X												
v. Manganese, Total (7439-96-5)	X		0.025	×	×	×	X	X	t	×	X	×	×	×
w. Tin, Total (7440-31-5)		×												
x. Titanium, Total (7440-32-6)		X												
EPA Form 3510-2C (8-90)	(8-90)						PAGE V-2					00	CONTINUE ON PAGE V-3	PAGE V-3

EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS

briefly descri additional de	briefly describe the reasons the po additional details and requirements.	the pollutan ments.	t is expected to be dis	scharged.	Note that there are	7 pages to	briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.	ch carefully. C	omplete one ta	ble (<i>all 7 p</i> .	ages) for each out	'all. See instr	uctions fo
	2. MARK "X"	,*X			3, EFF	EFFLUENT	**************************************		4. UNITS	TS	S. INT	5. INTAKE (optional)	
	e č	ల	a. MAXIMUM DAILY VALUE	VALUE		Y VALUE	c, LONG TERM AVRG. VALUE (if available)				a. LONG TERM AVERAGE VALUE	ERM /ALUE	
(If available) REQ	TESTING BELIEVED REQUIRED PRESENT	D BELIEVED T ABSENT	(1) CONCENTRATION	(Z) MASS	(1) CONCENTRATION (2) MASS	(1) CONCENTRATION (2) MASS	ANALYSES	a. CONCENTRATION	b. MASS	(1) CONCENTRATION	(2) MASS	D. NO. OF ANALYSE
METALS, CYANIDE, AND TOTAL PHENOLS	ID TOTAL PHEN	STOI		1]	1	1				***************************************	1	
1M. Antimony, Total (7440-36-0)		×											
2M. Arsenic, Total (7440-38-2)		×											
3M. Beryllium, Total (7440-41-7)		×			**************************************					***************************************	**************************************		
4M. Cadmium, Total (7440-43-9)		×											
5M. Chromium, Total (7440-47-3)		×		***************************************									
6M. Copper, Total (7440-50-8)		×											***************************************
7M. Lead, Total (7439-92-1)		×											
8M. Mercury, Total (7439-97-6)		×								TTO A TO SELECT THE SE	***************************************		
9M. Nickel, Total (7440-02-0)		×											
10M. Selenium, Total (7782-49-2)		×								**************************************			
t1M. Silver, Total (7440-22-4)		×											
t2M. Thallium, Total (7440-28-0)		×											
13M. Zinc, Total (7440-66-6)	Andrewson Made 1994	×											
14M. Cyanide, Total (57-12-5)		×											
15M. Phenols, Total		×											
DIOXIN													
2,3,7,8-Tetra- chlorodibenzo-P- Dioxin (1764-01-6)		X	DESCRIBE RESULTS	S									

EPA Form 3510-2C (8-90)

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

	2. MARK "X"	*×		3. EFFLUENT			STINI1 4	SI	5 INTAKE (antional)	money
1. POLLUTANT				b. MAXIMUM	c. LONG TERM AVRG.				a, LONG TERM	(***)
CAS NUMBER	TESTING BELIEVED	C. BELIEVED	a. MAXIMUM DAILY VALUE			d, NO, OF	a, CONCEN-		AVERAGE VALUE	N O O
	REQUIRED PRESEN	AT ABSENT	CONCENTRATION (2) MASS	CONCENTRATION (2) MASS	CONCENTRATION (2) MASS ANALYSES	ANALYSES	TRATION	b. MASS	CONCENTRATION (2) MASS	ASS ANALYSES
SCHOOL STATE OF THE STATE OF TH	- VOLATILE COMP	CONDO								
1V. Accrojein (107-02-8)		X								
2V. Acrylonifrile (107-13-1)		×					-			
3V. Benzene (71-43-2)		×								**************************************
4V. Bis (Ciloro- methyl) Ether (542-88-1)		X						**************************************		
5V. Bromoform (75-25-2)		×								
6V. Carbon Tetrachloride (56-23-5)		×								
7V. Chlorobenzene (108-90-7)		×								
8V. Chlorodi- bromomethane (124-48-1)		X								
9V. Chloroethane (75-00-3)		\times								
10V. 2-Chloro- ethylvinyl Ether (110-75-8)		×								
11V. Chloraform (67-66-3)		×								
12V. Dichloro- bromomethane (75-27-4)		X					***************************************			
13V. Dichloro- difluoromethane (75-71-8)		×								
14V. 1,1-Dichloro- ethane (75-34-3)		×								
15V. 1,2-Dichloro- ethane (107-06-2)		\times								
16V. 1,1-Dichloro- ethylene (75-35-4)		×								
17V, 1,2-Dichloro- propane (78-87-5)		×								
18V. 1,3-Dichloro- propylene (542-75-6)		X								
19V. Ethylbenzene (100-41-4)		×						·		
20V. Methyl Bromide (74-83-9)	•	×								
21V, Methyl Chloride (74-87-3)		\times								
EPA Form 3510-2C (8-90)	(8-90)			PAGE V-4	. V-4				CONTINUI	CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

	2 MARK "X"		T-N-11 1344 K		STING 4	IN 8	5 INTAKE (ontional)	
	£		Щ	c. LONG TERM AVRG.		a, LONG TERM	TERM VALUE	
CAS NUMBER TESTING (If available) REQUIRED	BELIEVED PRESENT	BELIEVED ABSENT	(1) CONCENTRATION (2) MASS CC	RATION (2) MASS ANALYSES	a. CONCEN- TRATION b. MASS	SONOS	(2) MASS	D. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS (cantinued)	THE COMPOU	INDS (canti		3			1	
22V. Methylene Chloride (75-09-2)		×				•••••		
23V. 1,1,2,2- Tetrachforoethane (79-34-5)		X						
24V. Tetrachloro- ethylene (127-18-4)		×						
25V. Toluene (108-88-3)		×						
26V. 1,2-Trans- Dichforoethylene (156-60-5)		X						
27V. 1,1,1-Trichloro- ethane (71-55-6)		X						
28V. 1,1,2-Trichloro- ethane (79-00-5)		X						
29V Trichloro- ethylene (79-01-6)		X						
30V. Trichloro- fluoromethane (75-69-4)		X						
31V. Vinyl Chloride (75-01-4)		X						
GC/MS FRACTION - ACID COMPOUNDS	COMPOUNDS							
1A. 2-Chloropheno((95-57-8)		X						
2A, 2,4-Dichloro- phenol (120-83-2)		X						
3A, 2,4-Dimethyl- phenol (105-67-9)		X						
4A. 4,6-Dinitro-O- Cresol (534-52-1)		×						
5A. 2,4-Dinitro- phenol (51-28-5)		X						
6A. 2-Nitrophend (88-75-5)		X						
7A. 4-Nitrophenol (100-02-7)		X						
8A, P-Chloro-M- Cresol (59-50-7)		×						·
9A. Pentachloro- phenol (87-86-5)		X						
10A, Phenol (108-95-2)		X						
11A. 2,4,6-Trichloro- phenol (88-05-2)		×						
EPA Form 3510-2C (8-90)			PAGE V-5			00	CONTINUE ON REVERSE	ERSE

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	2 MARK "X"	κ,		FN41 - 1911 6			STINITE		A INTAKE (Automote	
1. POLLUTANT					c. LONG TERM AVRG.		ř		a. LONG TERM	
AND CAS NUMBER	2 D.	0 0 0 0	a. MA	F	VALUE (if available)	2	C ZC C		AVERAGE VALUE	11 C
(if available)	REQUIRED PRESENT	ABSENT	(t) CONCENTRATION (2) MASS	(1) CONCENTRATION (2) MASS	(1) CONCENTRATION (2) MASS	ANAL YSES	TRATION	b. MASS CONC	(1) CONCENTRATION (2) MASS	ANALYSES
GC/MS FRACTION -	GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS	OMPOUND	Sı						ŧ	
1B. Acenaphthene (83-32-9)		X								
2B. Acenaphtylene (208-96-8)		×								
3B. Anthracene (120-12-7)		×							-	
4B. Benzidine (92-87-5)		×								
5B. Benzo (a) Anthracene (56-55-3)	· · · · · · · · · · · · · · · · · · ·	×								
68. Benzo (<i>u</i>) Pyrene (50-32-8)		×								
78. 3,4-Benzo- fluoranthene (205-99-2)		×								
8B. Benzo (ghr) Perylene (191-24-2)		×								
98, Benzo (k) Fluoranthene (207-08-9)		×								
10B. Bis (2-(7tloro- ethoxy) Methane (111-91-1)		X								
11B. Bis (2-Chloro- ethyl) Ether (111-44-4)	enconomic services	X								
12B. Bis (2- Chlorousopmyyl) Ether (102-80-1)		X								
13B. Bis (2-Ethyl- hcxyl) Phthalate (117-81-7)		X								
148, 4-Bromophenyl Phenyl Ether (101-55-3)		X								
15B. Butyl Benzyl Phthalate (85-68-7)		\times								
16B, 2-Chloro- naphthalene (91-58-7)		×						***************************************		
17B. 4-Chioro- phenyl Phenyl Ether (7005-72-3)		X								
18B. Chrysene (218-01-9)		×						### # # # # # # # # # # # # # # # # #		
19B. Dibenzo (a.h) Anthracene (53-70-3)		X								
20B. 1,2-Dichloro- benzene (95-50-1)		×								
21B. 1,3-Di-chlaro- benzene (541-73-1)		×								
EPA Form 3510-2C (8-90)	8-90)			PAGE V-6	\.e				CONTINUE ON PAGE V-7	PAGE V-7

CONTINUED FROM PAGE V-6

SOL GROWINGS	2 M	2 MARK "X"		***************************************	4	3 EEEI IENT				ZTINIT A	\$E	TNI &	4 INTAKE (contrason)	
1. POLLUTANT		× × × × ×	***************************************		b, MAXIMUM 30 C	NAY VALUE	c. LONG TER	M AVRG.		ř		a LONG T	ERM	
	roj (ان ا ا		a. MAXIMUM DAILY VALUE	(if available)	te)	VALUE (if available)) () 2			AVERAGE VALUE		(
(if available)	REQUIRED PR	BELIEVED BELIEVED PRESENT ABSENT	VED (1)	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	ANALYSES	TRATION	b. MASS	(1) CONCENTRATION	(2) MASS	ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)	- BASE/NEU	TRAL COMPO	UNDS (continued)				***************************************							
22B. 1,4-Dichloro- benzene (106-46-7)	**********	X	\/											
23B. 3,3-Dichloro- benzidine (91-94-1)		<u> </u>												
24B. Diethyl Phthalate (84-66-2)		X	\ /											
25B. Dimethyl Phthalate (131 -11-3)	***************************************	X	\/											
26B. DI-N-Butyl Phthalate (84-74-2)		X	\ <i>\</i>											
27B. 2,4-Dinitro- toluene (121-14-2)		X	\ /											
28B. 2,6-Dinitro- toluene (606-20-2)		X	\/											
29B. DI-N-Octyl Phthalate (117-84-0)		X	\/											
30B. 1,2-Diphenylhydrazine (as Azoberzene) (122-66-7)		X 	\/											
31B. Fluoranthene (206-44-0)		X	\/											
32B. Fluorene (86-73-7)		X	\/											
33B. Hexachloro- benzene (118-74-1)														
34B. Hexachloro- butadiene (87-68-3)		X	\/	•••••••										•
35B. Hexachloro- cyclopentadiene (77-47-4)		X	\/											
36B Hexachloro- ethane (67-72-1)		X												
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	1111		\/											
38B. Isophorone (78-59-1)		<u>Х</u>												
39B. Naphthalene (91-20-3)			_											
40B. Nitrobenzene (98-95-3)	••••	X	\ \ \											
41B. N-Nitro- sodimethylamine (62-75-9)			\/											
42B. N-Nitrosodi- N-Propylamine (621-64-7)			\/											:
EPA Form 3510-2C (8-90)	(8-90)					PAGE V-7	<i>L-</i> 7					00	CONTINUE ON REVERSE	EVERSE

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	2 86 0 0 0 0		2 / L/1 x 12.13 / U
1. POLLUTANT	Z. WARR A	b. MAXIMUM 30 DAY VALUE c. LONG TERM AVRG.	3 TERM
	ن	a. MAXIMUM DAILY VALUE (if available) VALUE (if available)	
(if available) REQUIRE	TESTING BELIEVED BELIEVED REQUIRED PRESENT ABSENT	TION (2) MASS CONCENTRATION (2) MASS CONCENTRATION (2) MASS ANALYSES TRATION (2) MASS CONCENTRATION (2) MASS CONCENTRATION (3) MASS CONCENTRATION (4)	D. NO. OF DN (2) MASS ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)	NEUTRAL COMPOUND		
43B. N-Nitro- sodiphenylamine (86-30-6)	×		
44B. Phenanthrene (85-01-8)	×		
45B, Pyrene (129-00-0)	×		
46B. 1,2,4-Tri- chlorobenzene (120-82-1)	×		
GC/MS FRACTION PESTICIDES		decreases the control of the control	
1P, Aldrin (309-00-2)	×		
2P. α-BHC (319-84-6)	X		
3P. β-BHC (319-85-7)	×		
4P. y-BHC (58-89-9)	×		
5P, 5-BHC (319-86-8)	×		
6P, Chlordane (5774-9)	×		
7P. 4,4'-DDT (50-29-3)	X		
8P, 4,4'-DDE (72-55-9)	×		
9P. 4,4'-DDD (72-54-8)	X		
10P. Dieldrin (60-57-1)	X		
11P. α-Enosulfan (115-29-7)	X		
12P. β-Endosulfan (115-29-7)	X		
13P. Endosulfan Sulfate (1031-07-8)	×		
14P. Endnn (72-20-8)	×		
15P, Endrin Aldehyde (7421-83-4)	×		
16P. Heptachlor (76-44-8)	X		
EPA Form 3510-2C (8-90)		PAGE V-8	CONTINUE ON PAGE V-9

UMBER (copy from Item I of Form I) OUTFALL NUMBER	3. EFFLUENT 5. INTAKE (optional)	b. MAXIMUM 30 DAY VALUE c. LONG TERM AVRG. (if available) VALUE (if available) AVERAGE VALUE	CONCENT										
EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER	3. EFFLUENT	c. LONG TERM AVRG. VALUE (y available)	(2) MASS CONCENTRATION (2) MASS										
CONTINUED FROM PAGE V-8	2. MARK "X"		TESTING BELIEVED BELIEVED REQUIRED ABSENT	GC/MS FRACTION - PESTICIDES (continued)	17P. Heptachlor Epoxide (1024-57-3)	18P. PCB-1242 (53469.21-9)	19P. PCB-1254 (11097-69-1)	20P. PCB-1221 X	21P, PCB-1232 X (11141-18-5)	22P. PCB-1248 (12672-29-6)	23P. PCB-1260 X (11036-82-5)	24P. PCB-1016 X (12674-11-2)	25P. Toxaphene

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VPDES Permit Application Addendum

9. Approval Date(s): O & M ManualJune	e 2005	Sludge/Solids Management Plan N/A_
Have there been any ch	anges in your operations	s or procedures since the above approval dates?

PUBLIC NOTICE BILLING INFORMATION FORM

1 hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in accordance with 9 VAC 25-31-290, C. 2.

Agent/Department to be billed:

Agent/Department to be billed:	Henrico County Department of Public Utilities
Owner:	Henrico County Department of Public Utilities
Applicant's Address:	P.O. Box 27032
	Richmond, VA 23273
Agent's Telephone No:	804-501-4280
Authorizing Agent:	Gether Petresi Signature
Facility Name:	Henrico County Water Treatment Plant
Permit No:	VA0091197

Please return to:

Ms. Gina Kelly DEQ – Piedmont Regional Office 4949 A-Cox Road Glen Allen, VA 23060

Fax Number: 804-527-5106